



# Gods and Dumps

Attribute Tuning in Pillars of Eternity

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# Who am I?

- Josh Sawyer, Game Director at Obsidian Entertainment
- Tabletop role-playing gamer for 30 years.
- CRPG developer for 17 years.
- Area and narrative design, but primarily system design and direction.





# What are we talking about?

- Pillars of Eternity
- Attributes / Ability Scores
- *Viable* and *Optimal*
- Gods and Dumps?





# Attributes in Class-based Role-playing Games

- We're really talking about Advanced / Dungeons & Dragons.
- Go back to pre-Basic, but tons of games have them, from Ultima to Final Fantasy to Dark Souls.
- Used to define and distinguish fundamental aspects of the character.
- Originally random, but a greater shift to point buy.

Strength!

Constitution!

Dexterity!

Intelligence!

Wisdom!

Charisma!

(Comeliness!)



# The Olden Tymes (Basic-2<sup>nd</sup> Edition)

- Roll dice, figure out what class you *could* be.
- Lots of dump stats and dead ranges (8-14).
- Viability was always in question.





# The Reasonably Intelligent Wizard in AD&D

- Make a wizard with 14 Intelligence.
- Advance to 13<sup>th</sup> level.
- Realize you can't cast 7<sup>th</sup>+ level spells.





# The Reasonably Strong Fighter in AD&D

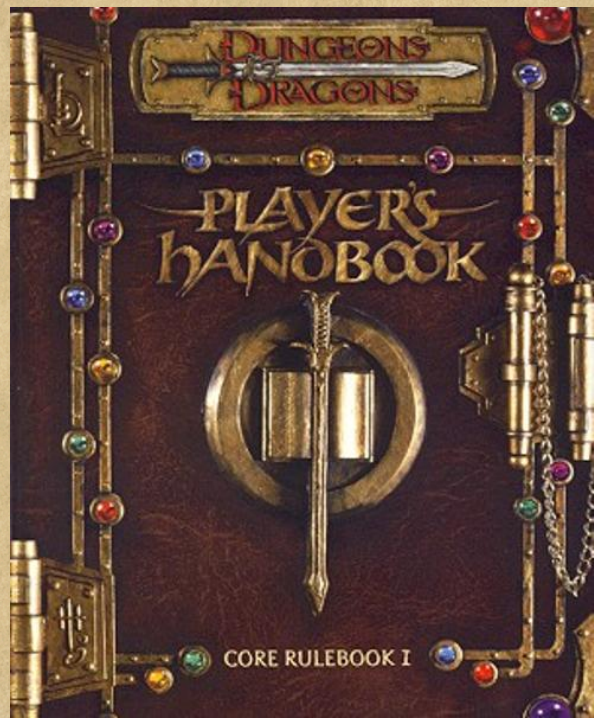
- Start with 15 Strength (Khalid in Baldur's Gate), take Specialization.
- Damage is terrible compared to someone with 18(00) Strength –  $1d10+2$  (7.5) vs.  $1d10+8$  (13.5)
- Advance to 13<sup>th</sup> level, take Grand Mastery, get a +4 weapon.
- Damage is still bad compared to someone with 18(00) Strength –  $1d10+9$  (14.5) vs.  $1d10+15$  (20.5)





# The 3E Shift

- *Explicit* class requirements and bonus XP disappeared.
- Linear bonus progression (+1/2 points).
- Multiple builds were viable, if not optimal.
- Some classes require 3 stats, some 4.
- Splat books introduced more gimmick build possibilities.
- A core fighter with high Intelligence, low Strength is a *bad fighter*. With the right optional rules, they could easily be a viable fighter.





### 3.X = Min-Maxer's Delight

- Stacking rules clarified, but left more room for optimization (bonus types).
- Character builders and online forums allow for much more in-depth analysis.
- Apotheosis of 3.X = Lol-R-SK8

#### Lol-R-SK8

<b>Race</b>	Human, shapechanged Yuan-Ti Anathema most of the time
<b>Class</b>	Cleric of the Computer 1/Wizard 6/Contemplative 1/Mystic Theurge 10/Seeker of Alpha Complex 1/Loremaster 10/Monk 1/Variant Druid 1
<b>Alignment</b>	Lawful Neutral
<b>HD</b>	$d8+7d4+9d4+d6+11d4+d8+d8 = 26d4 + 1d6 + 3d8 = 6 + 26x2 + 1x3 + 2x4 + 31x23 = \mathbf{755\ HP}$
<b>XP</b> (436000)	435000 (30 levels), <b>1000</b> spare
<b>BAB</b>	+13 (3.5 + 6.75+0.5+5+0.75), <b>+30</b> with <i>divine power</i>
<b>Size</b>	Gargantuan
<b>Speed</b>	(40'+10') base x2 +30' haste +10' domain = <b>140'</b>
<b>Fly Speed</b>	(40'+10') base x2 x2 +30' haste +10' domain = <b>190'</b> (good)



# Pillars' Goals

- Six attributes
- Class abilities are not explicitly associated with attributes
- Influence statistics of importance to *all* classes linearly.
- Primary goal: "No bad builds."
- Secondary goal: Ensure that dumping stings (reality check).





# Six Attributes - Why?

- Tradition.
- Fan feedback hovered between 5 and 7.
- Pairs worked well for 3 defenses (Fortitude, Reflex, Will) and defenses are not "opt-out".





# Class abilities not associated with attributes

- Explicit ties establish inescapable emphasis for viability. Cf. D&D Intelligence and Pillars Intellect for wizards, D&D Charisma and Pillars Resolve for Paladins.
- If something is required for viable play, *why is it an option?*





# Influence Statistics of Importance to All Classes

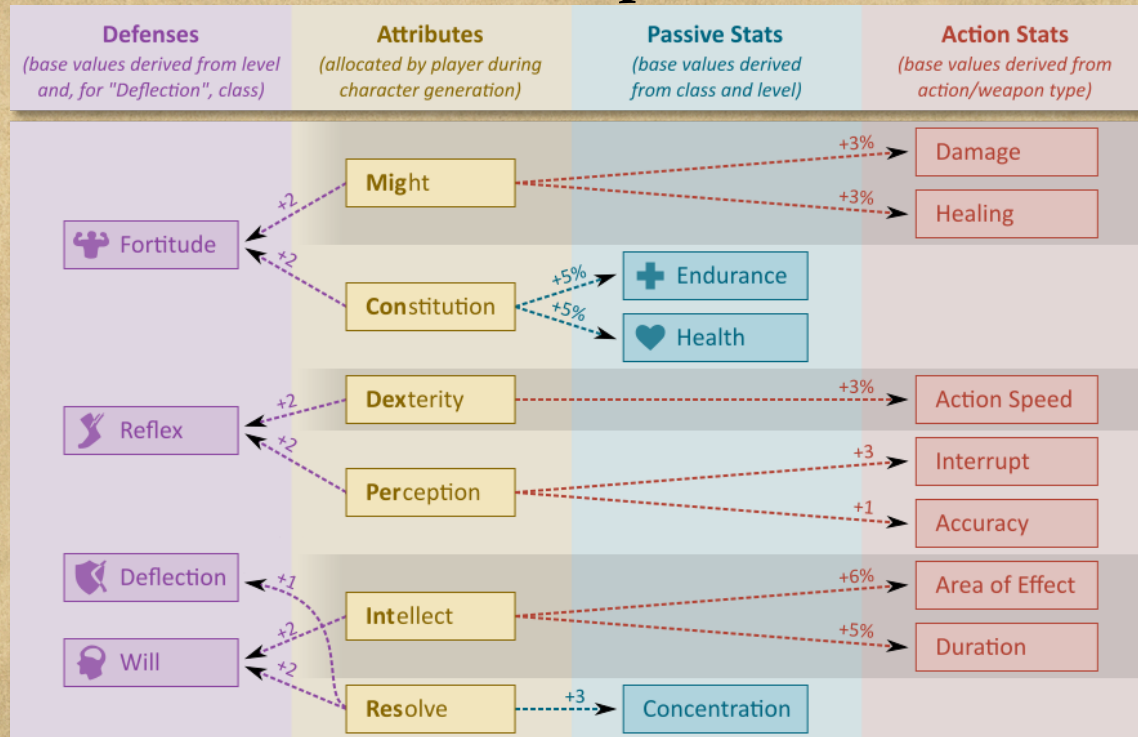


Image from the Pillars of Eternity Gamepedia, author Ineth2.



# No bad builds - why?

- Role-playing is about building and expressing a character both through social interactions and (often) through mechanics.
- Viability limitations can result in mid- or late-game roadblocks.
- Fewer viability limitations = more viable character concepts:
  - The perceptive genius barbarian (high Per/Int).
  - The idiot muscle wizard (low Int, very high Might).
  - The clumsy, determined rogue (low Dex, high Res).



# Cool Concept, Bad Character

- Ability scores and classes can often conflict.
  - Class A is good at X, Y, and Z.
  - Ability B drastically impacts X and Z.
- Mechanics and content balanced around one reinforcing the other.
  - Warrior THACo/BAB, Strength, and Armor Class.
  - Rogue Reflex saves, Skills, Dex, and Difficulty Class.
- A cool concept (smart fighter) can be a bad character in practice.
  - Failure to min-max key attributes results in lower totals.
  - Content that scales assuming min-maxing leaves suboptimal characters behind.



# Ensure dumping stings - why?

- Not to be punitive for its own sake.
- Reality check for the importance of systems.
- If people don't care about dumping it, it's not that important.
- Choice and consequence.





# Some Good Things about PoE Attributes

- Hard to make non-viable characters.
- Easy to build a lot of unusual *and* viable character concepts.
- Not too hard to make different *optimal* builds that emphasize different things.
  - Interrupt-focused barbarian vs. striking barbarian
  - Gish muscle wizard vs. crowd control wizard
- Min-maxers can still go wild.
- Despite relative simplicity, mechanics allow for interesting analysis.



# Accuracy and Damage

- Each point of Perception adds 1 to Accuracy, shifting Miss/Graze/Hit/Crit ranges for *all* attacks.
- Each point of Might adds 3% to Damage and Healing from *any* source.
- Certain builds rely more heavily on Accuracy than Damage output (e.g. crowd control) and benefit *marginally* from detailed analysis.



# Common Criticisms of PoE Attributes

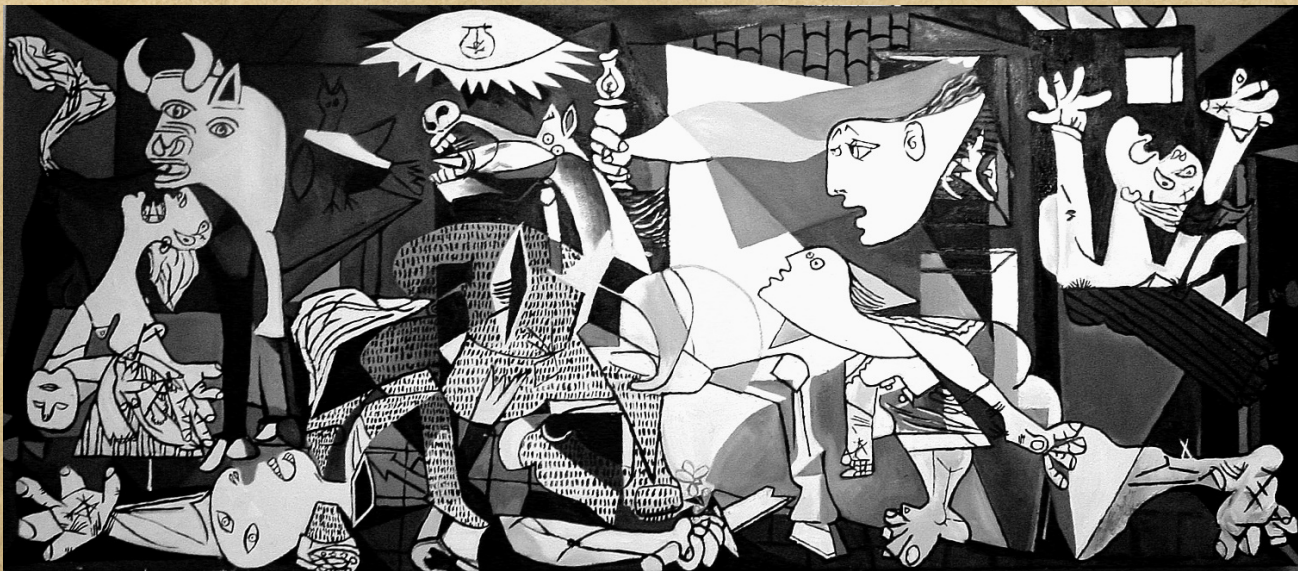
- They aren't realistic.
- They don't have enough of an impact.
- Perceived lack of value.
- The companions are awful!!!





# They Aren't Realistic

- A/D&D's selective verisimilitude.
- Pillars already abstracts a lot.
- Realism was not a priority.





# Not Enough Impact

- Viability requirement limits relative impact.
- Linear scaling means a regular progression.
- Avoiding A/D&D's known ability score imbalances (e.g. 3.X Strength).
- Strength vs. Might —  $1d10+6$  vs.  $14-20+24\%$

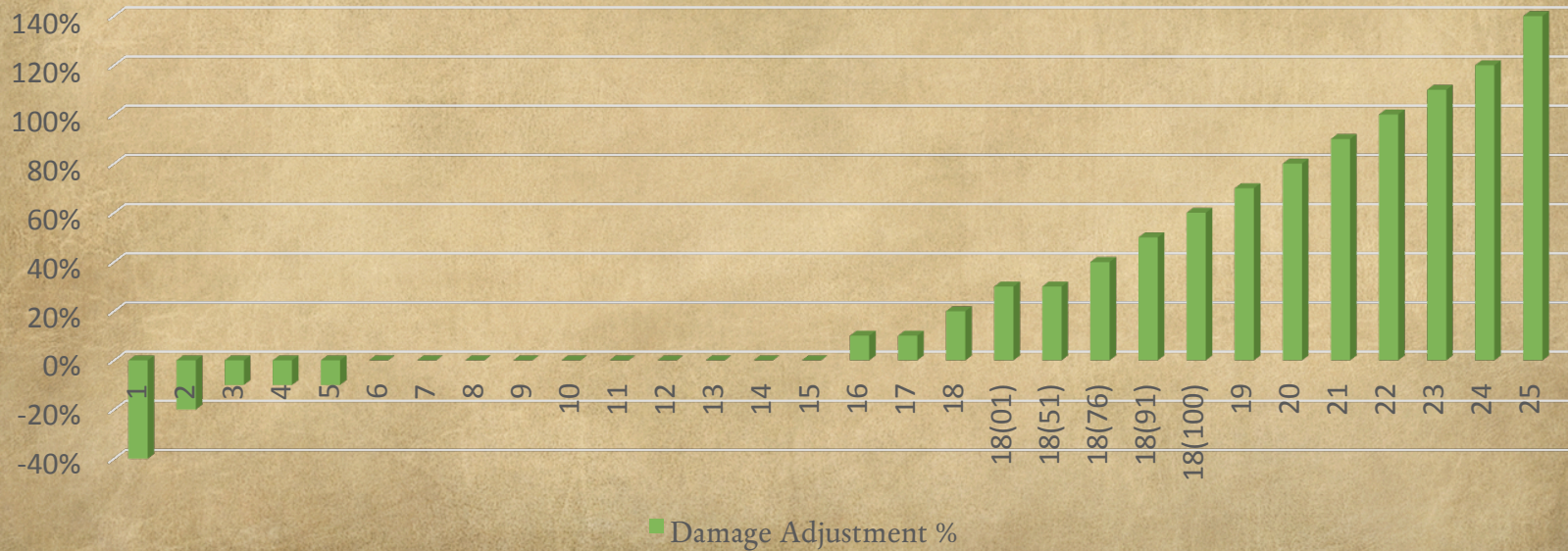




# AD&D Strength Damage Adjustment

(assumes AD&D Two-Handed Sword)

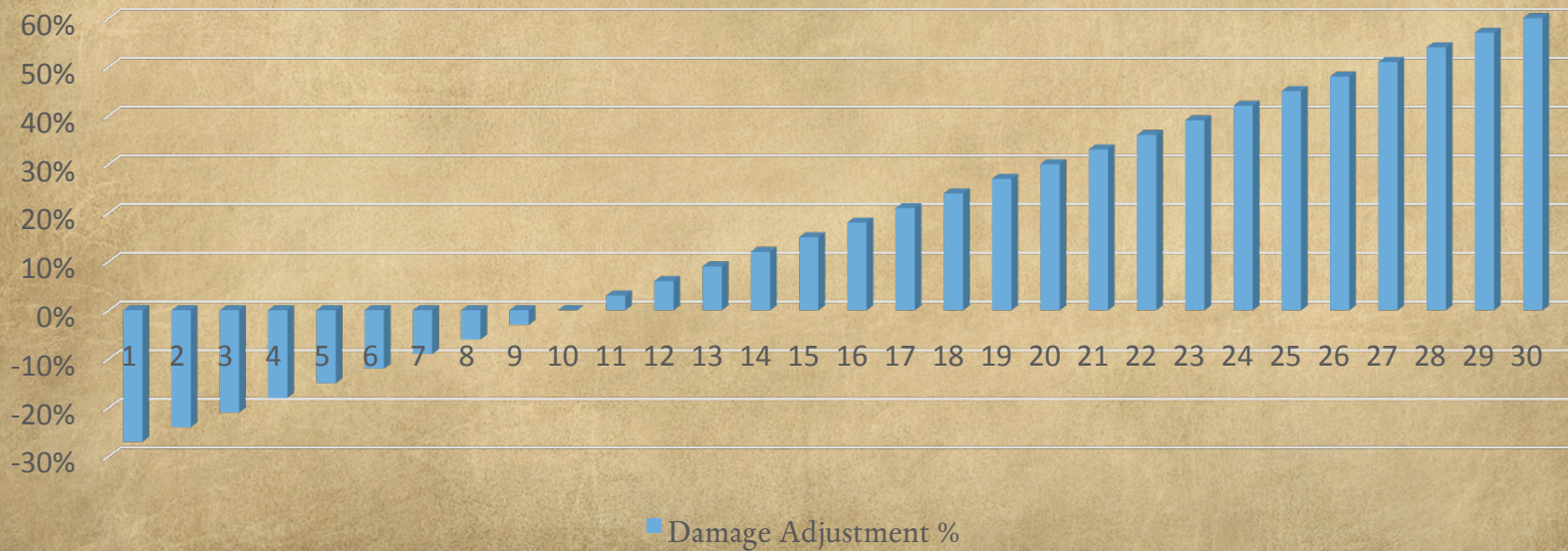
Damage Adjustment %





# Pillars of Eternity Strength Damage Adjustment

Damage Adjustment %





# Perceived Lack of Value

- Percentages are hard.
- Larger numerical values pose problems.
- Poor feedback in the UI.



♥ Health: 637/637  
 + Endurance: 128/128  
 // Damage  
 Primary: 17-26 /  
 ◎ Accuracy  
 Primary: 54  
 Interrupt: 9  
 Concentration: 85  
 Defenses  
 44 55 57 47  
 Damage Reduction: 11  
 17 6

Sagani

Name: Sagani  
 Class: 8th level Ranger  
 Race: Boreal Dwarf  
 Background: Naasitaq - Hunter  
 Experience: 29461/36000

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Attributes

Mig	15	+15% Damage and Healing, +10 Fortitude
Con	12	+6% Endurance and Health, +4 Fortitude
Dex	15	+15% Action Speed and +10 Reflex
Per	13	9 Interrupt, +3 Deflection, and +6 Reflex
Int	13	+18% Area of Effect, +15% Duration, and +6 Will
Res	10	0 Concentration, +0 Deflection, and +0 Will

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Active Effects

Faithful Companion: +15 Defense against Dominated attacks, +15 Defense against Confused attacks, +15 Defense against Charmed attacks



# The Companions are Awful!!!

- Companion attributes reflect who they are as characters.
- Attributes designed to be "middle of the road" for their class, not min-maxed.
- Despite player success on Path of the Damned using stock companions, players still want to adjust them.





# Pallegina - Paladin

- Character is willful, tough, but describes failing her physical examinations in the Brotherhood of Five Suns more than once.
- As an avian godlike, she has heightened senses and her eyes are frequently described in reaction text.



Pallegina



Name: Pallegina  
 Class: 5th level Paladin (Fermàs mes Canc Suolias)  
 Race: Avian Godlike  
 Background: The Vailian Republics - Soldier  
 Experience: 12857/15000

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Attributes

Mig	12	+6% Damage and Healing, +4 Fortitude
Con	13	+15% Endurance and Health, +6 Fortitude
Dex	11	+3% Action Speed and +2 Reflex
Per	14	+12 Interrupt, +4 Accuracy, and +8 Reflex
Int	13	+18% Area of Effect, +15% Duration, and +6 Will
Res	15	+15 Concentration, +5 Deflection, and +10 Will

♥ Health: 564/564  
 + Endurance: 113/113

Damage  
 Primary: 17-24 ✓

Accuracy  
 Primary: 51

Interrupt: 12

Skills



Pallegina



Name: Pallegina  
 Class: 8th level Paladin (Fermàs mes Canc Suolias)  
 Race: Avian Godlike  
 Background: The Vailian Republics - Soldier  
 Experience: 29342/36000

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Attributes

Mig	21	+33% Damage and Healing, +22 Fortitude
Con	15	+25% Endurance and Health, +10 Fortitude
Dex	4	-18% Action Speed and -12 Reflex
Per	3	-21 Interrupt, -7 Accuracy, and -14 Reflex
Int	20	+60% Area of Effect, +50% Duration, and +20 Will
Res	18	+24 Concentration, +8 Deflection, and +16 Will

♥ Health: 783/875  
 + Endurance: 175/175

Damage  
 Primary: 13-19 ✓

Accuracy  
 Primary: 60

Interrupt: -21

Skills



# Our Stance

- We don't really care about people adjusting companion stats.
- Well, maybe a little.
- Attribute system is designed to handle it.
- Sooooo....



ツツ



# Devil of Caroc - Rogue

- Has a modest Might score (13).
- Might bonuses to damage not multiplicative, but additive.
- 18 Might would net +15% damage.
- Rogue's Sneak Attack is +50% damage.
- Most rogue active abilities add +25% damage.
- Dumping Might to 3 would be -21% damage.
- Significantly lower damage, but not "non-viable".





# Changes During Dev and Post-Launch

Initial:

- Attributes all granted bonuses from 1 on.
- Perception and Resolve contributed to Deflection.
- Perception initially granted +2 to Accuracy per point (no brainer), then no attribute contributed to Accuracy.
- Constitution's bonus to Endurance and Health was 3%.
- Perception modified range.
- Intellect modified *radius*, not area, and by 3% increments.



# Changes During Dev and Post-Launch

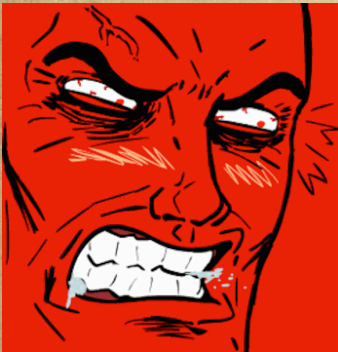
Eventual:

- Attributes averaged around 10, with lesser values inflicting penalties.
- Perception contributes to Accuracy (no influence on range), Resolve to Deflection.
- Constitution's bonus increased to 5%.
- Intellect modifies area in 5% increments.



# You Can't Make Everyone Happy

- That's true of any design, but we didn't try to.
- Our implementation was within the audience's tolerance thresholds.
  - Some prefer no attributes, some for stronger/different attributes.
  - "We wish it were different, but it's not a deal-breaker."
  - No actual data to support this, just anecdotes.
- Ideological purity doesn't necessarily = happier players.





## Would We Do It Again?

- Yeah, probably.
- Benefits outweigh the drawbacks.
- We were happy with the gameplay.
- Players seem happy, too.

## Would I Do It, Personally?

- Nope!
- Don't like the conflict with classes.
- Don't like class-based systems!



# Questions and Comments

Special Thanks:

- Our backers, beta testers, and players.
- Our QA testers.
- Brenda Romero.

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